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=> file caplus wpids uspatfull biosis embase medline

FILE 'CAPLUS' ENTERED AT 16:25:59 ON 21 MAY 2002
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FILE 'BIOSIS' ENTERED AT 16:25:59 ON 21 MAY 2002
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FILE 'MEDLINE' ENTERED AT 16:25:59 ON 21 MAY 2002

=> s homogenizer(p)ultrasonicat?
L1          113 HOMOGENIZER(P) ULTRASONICAT?

=> l1(p)aggregat?
L2            9 L1(P) AGGREGAT?

=> d his

     (FILE 'HOME' ENTERED AT 16:24:48 ON 21 MAY 2002)

     FILE 'CAPLUS, WPIDS, USPATFULL, BIOSIS, EMBASE, MEDLINE' ENTERED AT
     16:25:59 ON 21 MAY 2002
L1          113 S HOMOGENIZER(P)ULTRASONICAT?
L2            9 L1(P)AGGREGAT?

=> d l2 1-9 ibib ab

L2   ANSWER 1 OF 9  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         2000:600961  CAPLUS
DOCUMENT NUMBER:          133:366317
TITLE:                    Preparation of poly(3-hydroxy butyrate-co-3-hydroxy
                          valerate) microspheres by emulsification process
AUTHOR(S):                Lee, Ki-Chang; Lee, Sung-Eum; Seo, Hyeong-Joo
CORPORATE SOURCE:         Department of Polymer Science and Engineering,
                          Gyeongsang National University, Jinju, 660-701, S.
                          Korea
SOURCE:                   Polymer (Korea) (1999), 23(3), 338-347
                          CODEN: POLLDG; ISSN: 0379-153X
PUBLISHER:                Polymer Society of Korea
DOCUMENT TYPE:            Journal
LANGUAGE:                 Korean
AB   In order to prep. poly(3HB-co-3HV) microspheres as polymeric supports for
     the uses of controlled drug delivery, various artificial emulsifications
     with solvent evapn. were carried out.  In case of using
     hexadecyltrimethylammonium bromide or Na lauryl sulfate as an ionic
     surfactant under ultrasonication and homogenizer,
     milky-white poly(3HB-co-3HV) and PHB latices with av. particle diam. of
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0.2.apprx.0.3 .mu.m were made. In general, av. particle diam. decreased with increasing concn. of surfactant, agitation speed, agitation time and increased with increasing concn. of polymer soln. and its viscosity. On the other hand, in case of using gelatin or PVA as a nonionic surfactant, various sizes and types of poly(3HB-co-3HV) D600G particles were prepd. depending on the agitation speed, i.e., spherical particles of diam. ranges of 4.apprx.385.mu.m and 8.apprx.242 .mu.m, resp., were formed at 600.apprx.900 rpm using 3 blade propeller, and particles-**aggregates**, consisting of **aggregation** of sub-micron size particles, of diam. ranges of 0.6.apprx.60 .mu.m, resp., were formed at 6000.apprx.10000 rpm when using Omni mixer.

L2 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:297796 CAPLUS
DOCUMENT NUMBER: 128:298782
TITLE: Improved quantification of aggregated bacteria by combined enzymic and mechanical treatment of flocs and biofilm from a rotating drum bioreactor
AUTHOR(S): Salhani, Nazir; Uelker-Deffur, Antonette
CORPORATE SOURCE: Forschungszentrum Julich, Institut fur Biotechologie 3, Julich, D-52425, Germany
SOURCE: Water Res. (1998), 32(4), 1287-1295
CODEN: WATRAG; ISSN: 0043-1354
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB For ests. by plate counts of cell nos. of **aggregated** bacteria growing in a rotating drum bioreactor used to examine denitrification it was necessary to develop or to improve treatment methods for the disaggregation of bacterial flocs and biofilm into individual cells. In order to propagate and identify single strains (1) conventional mech. methods and (2) a combination of enzymic and mech. methods were tested. Ultrasonic treatment of bacterial flocs at 50 W for 120 s yielded the highest no. of colony-forming units as detd. by plate counts. Cellulase pre-treatment of bacterial **aggregates** or biofilms consisting mainly of Pseudomonads was used to loosen the extracellular polymeric substances which are responsible for the stability of these bacterial **aggregates**. Subsequent mech. treatment led to substantially improved disaggregation without significant impairment or disrupture of cells. For the detachment of bacterial biofilm growth on the packing material, **ultrasonication** was used for post-treatment, whereas an ultra-turrax **homogenizer** was sufficient for disaggregation of the bacterial flocs.

L2 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:226174 CAPLUS
DOCUMENT NUMBER: 126:334291
TITLE: Microencapsulation of rh-erythropoietin, using biodegradable poly(D, L-lactide-co-glycolide). Protein stability and the effects of stabilizing excipients
AUTHOR(S): Morlock, Michael; Koll, Hans; Winter, Gerhard; Kissel, Thomas
CORPORATE SOURCE: Department Pharmaceutics Biopharmacy, Philipps University, Marburg, D-35032, Germany
SOURCE: Eur. J. Pharm. Biopharm. (1997), 43(1), 29-36
CODEN: EJPBEL; ISSN: 0939-6411

PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Parenteral delivery systems allowing controlled drug release over 1 mo are of particular interest for proteins and peptides. We investigated the microcapsulation of recombinant human erythropoietin (EPO), a stimulating factor of red blood cell prodn., into poly(D,L-lactide-co-glycolide) (PLG) microspheres, using a water-in-oil-in-water (W/O/W) double emulsion technique. The integrity and stability of EPO during microencapsulation and storage was characterized. Effects of excipients on in vitro release properties and formation of EPO **aggregates** were investigated. The formation of EPO **aggregates** in the W/O/W double emulsion technique was mainly influenced by the first homogenizing step, when prepg. the water-in-oil (W/O) emulsion, whereas the subsequent processing steps, including drying, proved to be noncrit. A rotor/stator **homogenizer** generated ca. 5% covalently bound EPO **aggregates, ultrasonication** and vortexing slightly increased **aggregate**-formation, as demonstrated by size-exclusion chromatog. and native-polyacrylamide gel electrophoresis. The discontinuous in vitro release behavior from PLG microspheres was not modified.

L2 ANSWER 4 OF 9 USPATFULL
ACCESSION NUMBER: 93:15752 USPATFULL
TITLE: Formulation for delivery of drugs by metered dose inhalers with reduced or no chlorofluorocarbon content
INVENTOR(S): Byron, Peter R., Richmond, VA, United States
Dalby, Richard N., Richmond, VA, United States
PATENT ASSIGNEE(S): Virginia Commonwealth University, Richmond, VA, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5190029 | | 19930302 |
| APPLICATION INFO.: | US 1991-721698 | | 19910626 (7) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1991-655668, filed on 14 Feb 1991 | | |

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lovering, Richard D.
LEGAL REPRESENTATIVE: Whitham & Marhoefer
NUMBER OF CLAIMS: 3
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 591
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Aerosol formulations for use in metered dose inhalers are disclosed which include 1,1,1,2-tetrafluoroethane alone and in combination with other compounds as well as various hydrocarbon blends. The density, vapor pressure, flame extension characteristics, dispersability of medicant, dissolvability of surfactant, respirable fraction, and compatibility elastomer seals for the aerosol formulations have been examined. The aerosol formulations are attractive alternatives to chlorofluorocarbon based aerosols since they do not deplete the ozone layer.

L2 ANSWER 5 OF 9 USPATFULL

ACCESSION NUMBER: 93:6931 USPATFULL
TITLE: Formulations for delivery of drugs by metered dose inhalers with reduced or no chlorofluorocarbon content
INVENTOR(S): Byron, Peter R., Richmond, VA, United States
Dalby, Richard N., Richmond, VA, United States
PATENT ASSIGNEE(S): Virginia Commonwealth University, Richmond, VA, United States (U.S. corporation)

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 5182097 | | 19930126 | |
| APPLICATION INFO.: | US 1991-655668 | | 19910214 | (7) |

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Levy, Neil
LEGAL REPRESENTATIVE: Whitham & Marhoefer
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 3
LINE COUNT: 839
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Aerosol formulations for use in metered dose inhalers are disclosed which include 1,1,1,2-tetrafluoroethane alone and in combination with other compounds as well as various hydrocarbon blends. The density, vapor pressure, flame extension characteristics, dispersability of medicant, dissolvability of surfactant, respirable fraction, and compatibility elastomer seals for the aerosol formulations have been examined. The aerosol formulations are attractive alternatives to chlorofluorocarbon based aerosols since they do not deplete the ozone layer.

L2 ANSWER 6 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1998:255635 BIOSIS
DOCUMENT NUMBER: PREV199800255635
TITLE: Improved quantification of aggregated bacteria by combined enzymatic and mechanical treatment of flocs and biofilm from a rotating drum bioreactor.
AUTHOR(S): Salhani, Nazir (1); Uelker-Deffur, Antonette
CORPORATE SOURCE: (1) Forschungszentrum Juelich, Inst. Biotechologie 3, D-52425 Juelich Germany
SOURCE: Water Research, (April, 1998) Vol. 32, No. 4, pp. 1287-1295.
ISSN: 0043-1354.
DOCUMENT TYPE: Article
LANGUAGE: English
AB For estimates by plate counts of cell numbers of **aggregated** bacteria growing in a rotating drum bioreactor (RBR) used to examine biological nitrate elimination (denitrification) it was necessary to develop or to improve treatment methods for the disaggregation of bacterial flocs and biofilm into individual cells. In order to propagate and identify single strains (1) conventional mechanical methods and (2) a combination of enzymatic and mechanical methods were tested. Ultrasonic treatment of bacterial flocs at 50 W for 120 sec yielded the highest number of colony-forming units (CFU) as determined by plate counts. Cellulase pre-treatment of bacterial **aggregates** or biofilms consisting mainly of pseudomonads was used to loosen the extracellular polymeric substances (EPS) which are responsible for the stability of these bacterial **aggregates**. Subsequent mechanical treatment led to substantially improved disaggregation without significant impairment
or

disrupture of cells. For the detachment of bacterial biofilm growth on the packing material, **ultrasonication** was used for post-treatment, whereas an ultra-turrax **homogenizer** was sufficient for disaggregation of the bacterial flocs.

L2 ANSWER 7 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1997:170081 BIOSIS
DOCUMENT NUMBER: PREV199799476684
TITLE: Microencapsulation of rh-erythropoietin, using biodegradable poly(D,L-lactide-co-glycolide): Protein stability and the effects of stabilizing excipients.
AUTHOR(S): Morlock, Michael; Koll, Hans; Winter, Gerhard; Kissel, Thomas (1)
CORPORATE SOURCE: (1) Dep. Pharmaceutics Biopharm., Philipps Univ., Ketzerbach 63, D-35032 Marburg Germany
SOURCE: European Journal of Pharmaceutics and Biopharmaceutics, (1997) Vol. 43, No. 1, pp. 29-36.
ISSN: 0939-6411.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Parenteral delivery systems allowing controlled drug release over one month are of particular interest for proteins and peptides. We investigated the microencapsulation of recombinant human erythropoietin (EPO), a stimulating factor of red blood cell production, into poly(D,L-lactide-co-glycolide) (PLG) microspheres, using a water-in-oil-in-water (W/O/W) double emulsion technique. The integrity and stability of EPO during microencapsulation and storage was characterized. Effects of various excipients on in vitro release properties and formation of EPO **aggregates** were investigated. The formation of EPO **aggregates** in the W/O/W double emulsion technique was mainly influenced by the first homogenizing step, when preparing the water-in-oil (W/O) emulsion, whereas the subsequent processing steps, including drying, proved to be noncritical. A rotor/stator **homogenizer** generated ca. 5% covalently bound EPO **aggregates**, **ultrasonication** and vortexing slightly increased **aggregate**-formation, as demonstrated by size-exclusion chromatography and native-polyacrylamide gel electrophoresis (PAGE). Using excipients, such as hydroxypropyl-beta-cyclodextrin, L-arginine, or bovine serum albumin (BSA), a distinct reduction of the formation of EPO **aggregates** could be achieved. The discontinuous in vitro release behavior from PLG microspheres was not significantly modified by these additives, influencing predominantly the initial drug release phase. During the in vitro release, an accumulation of EPO **aggregates** in the residual microparticles was detected, which could not be suppressed by excipients. An accelerated stability test demonstrated no change in drug content, release behavior and **aggregate** profile over 56 days at -20, 8 degree C or room temperature.

L2 ANSWER 8 OF 9 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1998216430 EMBASE
TITLE: Microencapsulation of rh-erythropoietin, using biodegradable poly(D,L- lactide-co-glycolide): Protein stability and the effects of stabilizing excipients.
AUTHOR: Morlock M.; Koll H.; Winter G.; Kissel T.

CORPORATE SOURCE: T. Kissel, Pharmaceutics and Biopharmacy Dept., Philipps University, Ketzerbach 63, D-35032 Marburg, Germany
SOURCE: European Journal of Pharmaceutics and Biopharmaceutics, (1997) 43/1 (29-36).
Refs: 34
ISSN: 0939-6411 CODEN: EJPBEL
PUBLISHER IDENT.: S 0939-6411(96)00017-3
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Parenteral delivery systems allowing controlled drug release over one month are of particular interest for proteins and peptides. We investigated the microencapsulation of recombinant human erythropoietin (EPO), a stimulating factor of red blood cell production, into poly(D,L-lactide-co- glycolide) (PLG) microspheres, using a water-in-oil-in-water (W/O/W) double emulsion technique. The integrity and stability of EPO during microencapsulation and storage was characterized. Effects of various excipients on in vitro release properties and formation of EPO **aggregates** were investigated. The formation of EPO **aggregates** in the W/O/W double emulsion technique was mainly influenced by the first homogenizing step, when preparing the water-in-oil (W/O) emulsion, whereas the subsequent processing steps, including drying, proved to be noncritical. A rotor/stator **homogenizer** generated ca. 5% covalently bound EPO **aggregates, ultrasonication** and vortexing slightly increased **aggregate**-formation, as demonstrated by size- exclusion chromatography and native-polyacrylamide gel electrophoresis (PAGE). Using excipients, such as hydroxypropyl-.beta.-cyclodextrin, L-arginine, or bovine serum albumin (BSA), a distinct reduction of the formation of EPO **aggregates** could be achieved. The discontinuous in vitro release behavior from PLG microspheres was not significantly modified by these additives, influencing predominantly the initial drug release phase. During the in vitro release, an accumulation of EPO **aggregates** in the residual microparticles was detected, which could not be suppressed by excipients. An accelerated stability test demonstrated no change in drug content, release behavior and **aggregate** profile over 56 days at - 20, 8.degree.C or room temperature.

L2 ANSWER 9 OF 9 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1998143092 EMBASE
TITLE: Improved quantification of aggregated bacteria by combined enzymatic and mechanical treatment of flocs and biofilm from a rotating drum bioreactor.
AUTHOR: Salhani N.; Uelker-Deffur A.
CORPORATE SOURCE: N. Salhani, Forschungszentrum Julich, Institut fur Biotechologie 3, D-52425 Julich, Germany. N.Salhani@kfa-Juelich.de
SOURCE: Water Research, (1998) 32/4 (1287-1295).
Refs: 21
ISSN: 0043-1354 CODEN: WATRAG

PUBLISHER IDENT.: S 0043-1354(97)00284-4
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
046 Environmental Health and Pollution Control
LANGUAGE: English
SUMMARY LANGUAGE: English

AB For estimates by plate counts of cell numbers of **aggregated** bacteria growing in a rotating drum bioreactor (RBR) used to examine biological nitrate elimination (denitrification) it was necessary to develop or to improve treatment methods for the disaggregation of bacterial flocs and biofilm into individual cells. In order to propagate and identify single strains (1) conventional mechanical methods and (2) a combination of enzymatic and mechanical methods were tested. Ultrasonic treatment of bacterial flocs at 50 W for 120 sec yielded the highest number of colony-forming units (CFU) as determined by plate counts. Cellulase pre-treatment of bacterial **aggregates** or biofilms consisting mainly of pseudomonads was used to loosen the extracellular polymeric substances (EPS) which are responsible for the stability of these bacterial **aggregates**. Subsequent mechanical treatment led to substantially improved disaggregation without significant impairment or disrupture of cells. For the detachment of bacterial biofilm growth on the packing material, **ultrasonication** was used for post-treatment, whereas an ultra-turrax **homogenizer** was sufficient for disaggregation of the bacterial flocs.

```
=> s l2 and hydrophobic and polysaccharide
L3            0 L2 AND HYDROPHOBIC AND POLYSACCHARIDE

=> s homogenizer and hydrophobic and polysaccharide
L4          973 HOMOGENIZER AND HYDROPHOBIC AND POLYSACCHARIDE

=> s homogenizer/ab and hydrophobic/ab and polysaccharide/ab
'AB' IS NOT A VALID FIELD CODE
'AB' IS NOT A VALID FIELD CODE
L5            0 HOMOGENIZER/AB AND HYDROPHOBIC/AB AND POLYSACCHARIDE/AB

=> s homogenizer/abs and hydrophobic/abs and polysaccharide/abs
'ABS' IS NOT A VALID FIELD CODE
'ABS' IS NOT A VALID FIELD CODE
'ABS' IS NLLULAN OR AMYLOPECTIN OR AMYLOSE OR DEXTRAN OR CEL
OT A VALID FIELD CODE
'ABS' IS NOT A VALID FIELD CODE
'ABS' IS NOT A VALID FIELD CODE
'ABS' IS NOT A VALID FIELD CODE
L6            0 HOMOGENIZER/ABS AND HYDROPHOBIC/ABS AND POLYSACCHARIDE/ABS

=> s l4 and (aggregat? or agglomerate#)
L7          331 L4 AND (AGGREGAT? OR AGGLOMERATE#)

=> s l7 and (pullulan or amylopectin or amylose or dextran or cellulose)
L8          257 L7 AND (PULLULAN OR AMYLOPECTIN OR AMYLOSE OR DEXTRAN OR CELLUL
                OSE)
=> d his

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FILE 'CAPLUS, WPIDS, USPATFULL, BIOSIS, EMBASE, MEDLINE' ENTERED AT 16:25:59 ON 21 MAY 2002

L1 113 S HOMOGENIZER(P)ULTRASONICAT?
L2 9 L1(P)AGGREGAT?
L3 0 S L2 AND HYDROPHOBIC AND POLYSACCHARIDE
L4 973 S HOMOGENIZER AND HYDROPHOBIC AND POLYSACCHARIDE
L5 0 S HOMOGENIZER/AB AND HYDROPHOBIC/AB AND POLYSACCHARIDE/AB
L6 0 S HOMOGENIZER/ABS AND HYDROPHOBIC/ABS AND POLYSACCHARIDE/ABS
L7 331 S L4 AND (AGGREGAT? OR AGGLOMERATE#)
L8 257 S L7 AND (PULLULAN OR AMYLOPECTIN OR AMYLOSE OR DEXTRAN OR CEL